

Appendix A

AILESP Data Layers

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Appendix A

AILESP Data Layers

A.1 CENSUS DATA

The demographic data for Tribal areas included in AILESP originates with the U.S. Census Bureau's Summary Tape File 3A (STF 3A). This file was derived from the 1990 Census data at the block group level. Population and housing items present in AILESP were extracted for distinct U.S. Census designated American Indian/Alaska Native area numbers (reservation code). Demographic population categories for AILESP include:

- total population,
- per capita income,
- education less than eighth grade,
- education - grades 9 - 12,
- high school graduates,
- some college education,
- associate degree,
- bachelor's degree, and
- postgraduate work.

The values in these fields represent the percentage of persons age 25 and over in the specific category for the entire reservation code. Language spoken at home was extracted for English, Spanish, Native American, and other languages. The values for these fields hold the percentage of the population age five and over speaking the specific language. Again, these percentages represent the percentage of the population distributed over the entire reservation.

Users of AILESP Version 2.1 can access the Census demographic data for a specific reservation by using the Tribal Areas Demographics Information tool. This tool is only available when the Tribal Areas theme is active and visible.

CENSUS.DBF – Database file containing census data for Tribal areas. Size: 134KB

<u>Field</u>	<u>Name/Description</u>	<u>Values</u>
Name	Indian Reservation name	
Code	Indian Reservation code	
Pop100	Number of persons	
Percapinc	Per Capita Income	\$0 - \$63,913.00
Ed_8	Education < 9th grade	0 - 100 percent of population
Ed_9_12	Education, Grades 9-12	0 - 100 percent of population
Ed_hs	High School Graduates	0 - 100 percent of population
Ed_college	Some college education	0 - 100 percent of population
Ed_assoc	Associates degree	0 - 100 percent of population
Ed_bach	Bachelor's degree	0 - 100 percent of population
Ed_postgra	Postgraduate work	0 - 100 percent of population
English	% speaking English	0 - 100 percent of population
Spanish	% speaking Spanish	0 - 100 percent of population
Nativeamer	% speaking Native American	0 - 100 percent of population
Otherlang	% speaking all other languages	0 - 100 percent of population

Hidden fields

Aianace	American Indian/Alaskan
Id	Internal Id number
Code2	Reservation code
Ilat	Reservation polygon
Ilong	Reservation polygon

A.2 CERCLIS NPL SITES

The Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS) NPL Sites theme in AILESP contains point features for National Priority Listed sites within 5 kilometers of Tribal areas. CERCLIS is the official repository for all site and non-site specific Superfund data in support of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains information on hazardous waste site assessment and remediation from 1983 to the present. CERCLIS data is used to report official Superfund accomplishments to Congress and the public, help EPA Regional and Headquarters managers evaluate the status and progress of site cleanup actions, track Superfund Comprehensive Accomplishments Plan (SCAP), and communicate planned activities and budgets.

Each Region uploads data to CERCLIS from a LAN-based Superfund Information System called WasteLan. CERCLIS provides means for centralized updating as well as a way to report on-site planning and cleanup information. CERCLIS delivers vital program, enforcement, financial, management, and technical data as appropriate. Sites contained in

CERCLIS have one or more of the following characteristics:

- currently listed on the National Priorities List (NPL), or
- formerly investigated as a Superfund site, or
- currently being investigated as a Superfund site.

The data from CERCLIS used in AILESP contains points from the LandView III Environmental Mapping Software produced by the U.S. Department of Commerce Bureau of the Census in conjunction with the U.S. EPA and the National Oceanic and Atmospheric Administration (NOAA). A dBase format file of all NPL sites from LandView III was imported into the ArcView software package. Each latitude-longitude coordinate pair for a site was converted into a point feature. An ArcView shapefile of all of the points in the U.S. was then sampled to extract only those points that were within 5 km of Tribal areas.

NPL PTS.DBF – Database for sites listed in the CERCLIS National Priorities List (NPL). Size zipped: 25KB

<u>Field</u>	<u>Description</u>	<u>Description/Values</u>
EPA_ID	12 character EPA ID	
COUNTY	County Name	
NAME	Facility Name	
STATE	State Abbreviation	
C0001	EPA Region	
C0101	EPA ID Number	
C0110	Address	
C0111	City	Name of the city, town, village or other municipality in which the site is located or incident occurs Up to 25 characters of text or blank
C0112	Zip Code	Code that identifies the U.S. postal service delivery area in which the site is located or incident occurs. Five numeric characters or nine numeric characters or blank
C0121	County FIPS Code	Three digit County FIPS Code that identifies the county in which the site is located or the incident occurs

<u>Field</u>	<u>Description</u>	<u>Description/Values</u>
C0130	Congressional District	Code that identifies the congressional district in which the site is located or incident occurs. Valid Codes: 07 - AL 01 - AK 04 - AR 05 - AZ 45 - CA 06 - CO 06 CT 01 - DE 19 - FL 10 - GA 02 - HI 02 - ID 22 - IL 10 IN 06 - IA 05 - KS 11 - MA 18 - MI 08 - MN 05 MS 09 - MO 02 - MT 03 - NE 02 - NV 02 - NH 14 NJ 03 - NM 34 - NY 11 - NC 01 - ND 21 - OH 06 - OK 05 - OR 23 - PA 02 - RI 06 - SC 01 - SD 09 - TN 27 - TX 03 - UT 01 - VT 10 - VA 08 - WA 04 - WV 09 WI 01 - WY 01 - PR 01 - AS 01 - DC 01 - GU 01 - VI 01 - CM 01 - WQ 01 - TT 01 - MQ 01 - PI
C0135	Federal Facility (Y/N)	Code that indicates whether or not the site or incident is a federal facility. Legitimate Entries: 'D' = Status Undetermined 'N' = Not A Federal Facility (D) 'Y' = Federal Facility
FED C0137	Federal Facility (Text) Site Incident Category	The overall physical classification of the site or incident. Legitimate Entries: ' ' = Blank 'A' = Abandoned 'B' = Chemical Plant 'C' = City Contamination 'D' = Dioxin 'F' = Federal Facility 'G' = Groundwater 'H' = Housing Area/Farm 'I' = Industrial Waste Treatment 'J' = Inorganic Waste 'L' = landfill 'M' = Manufacturing Plant 'N' = Military Related 'O' = Other 'P' = Pure Lagoons 'R' = Radioactive Site 'T' = Mines/Tailings 'V' = Waterways/Creeks/Rivers 'W' = Wells

<u>Field</u>	<u>Description</u>	<u>Description/Values</u>
SITE_CAT textual	Type of Site	Text description of the site type. This field is a translation of the C0137 field.
C0204	On-site Coordinator Name	Up to 20 characters of text or blank
C0205	Contact Phone Number	Ten numeric characters or blank
C0305	NPL Status	Indicator that categorizes a site's National Priority List (NPL) status, for statistical analysis and reporting purposes. Legitimate Entries: ' ' = blank 'A' = site is part of NPL site 'D' = deleted from the final NPL (including interim priority list sites that have been cleaned up) 'F' = currently on the final NPL 'N' = not on NPL (is not currently nor was formerly on the proposed or final NPL. Includes unanticipated removals occurring at a location not previously identified as a CERCLIS site.) (D) 'O' = not valid site or incident (this is not a valid site or incident as defined in CERCLIS. This code can be used for regional management purposes. Any information associated with site/incidents having this code will not appear in standard listings and will not be counted in standard statistical reports.) 'P' = proposed for NPL 'R' = removed from proposed or final NPL prior to formal deletion 'S' = pre-proposal site (has Superfund Comprehensive Accomplishments Plan [SCAP] remedial activities.)
NPL	NPL Status Text	
C0322	Latitude, Decimal degrees,	The latitude of the site location or incident occurrence expressed in Decimal Degrees (to seven numeric characters or blank).
C0323	Longitude, Decimal degrees	The longitude of the site location or incident occurrence expressed in Decimal Degrees (to eight numeric characters or blank).
C0326	Lat/Long Source	Code indicating the source of the site or incident latitude and longitude data. Legitimate Entries: ' ' = Blank 'E' = EPIC. Code is system generated by the EPIC update if the latitude and longitude data is entered in the EPIC data base. 'G' = Geographic. Code is system generated by the geographic update if the latitude and longitude data were entered in the geographic data base. 'R' = Regional. Latitude and longitude data were researched by the region and manually entered.

<u>Field</u>	<u>Description</u>	<u>Description/Values</u>
C0327	Lat/Long Accuracy	Code indicating the accuracy/precision of the site latitude/longitude data.
C0364	USGS Hydrologic Unit Code	A code indicating the hydrologic location of a site, as designated by the USGS and the U.S. water resources council. Legitimate Entries: POS. 1,2 = 01 - 21 POS. 3,4 = 01 - 99 POS. 5,6 = 01 - 99 POS. 7,8 = 00 - 99
YEAR	Year	
ST_COUNTY	FIPS STATE_COUNTY Code	
LATITUDE	Latitude, decimal degrees	
LONGITUDE	Longitude, decimal degrees	
LL_METHOD	Latitude and Longitude collection method	
LL_ACCURAC	Accuracy in meters	
LL_DESCRIP	Description of Latitude and Longitude Collection point.	

A.3 CONTAMINATED SEDIMENTS AND CONTAMINATED FISH TISSUE DATABASES - 1:100,000

The Contaminated Sediments and Contaminated Fish Tissue databases contain a subset of data from EPA's 1993 National Sediment Inventory. The data consist of sampling locations where measurements of hazardous substances in sediment and fish tissue exceeded levels that may cause adverse effects to human health and aquatic life. The contaminant levels of concern were obtained from the draft *National Sediment Quality Survey: A Report to Congress on the Extent and Severity of Sediment Contamination in the United States* (EPA-823-D-96-002).

AILESP v.2.1 extracted the chemical of concern and the RF1 stream reach numbers from the Contaminated Sediments and Contaminated Fish Tissue databases.

The RF1 stream reach numbers contain at least one sampling station where measurements of the chemical of concern exceeded levels that may cause adverse effects to human health and aquatic life.

FTADETL.DBF – Database with supplemental information for 1991-93 Fish Tissue Contamination. Size: 325KB, zipped: 9KB

<u>Field</u>	<u>Name</u>
REACHNUM	RF1 Reach Number
RVRNAME	River Name
CHEMN01-18	Chemicals of Concern

TISSCONT.DBF – Database for ArcView coverage of 1991-93 Contaminated Fish Tissues. Size: 23KB, zipped: 5KB

<u>Field</u>	<u>Name</u>
ID	Segment ID
RF1_REACH_	RF1 Reach Number
POINTS	Number of points
WTRSHED	Watershed code

SEDCONT.DBF – Database for ArcView coverage of 1990-93 Contaminated Sediments. Size: 23KB, zipped: 5KB

<u>Field</u>	<u>Name</u>
ID	Segment ID
RF1_REACH_	RF1 Reach Number
POINTS	Number of points
WTRSHED	Watershed code

SEDDTL.DBF – Database with supplemental information for 1990-93 Contaminated Sediment. Size: 329KB, zipped: 10KB

<u>Field</u>	<u>Name</u>
REACHNUM	RF1 Reach Number
RVRNAME	River Name
CHEMN01-18	Chemicals of Concern

A.4 FISH ADVISORY DATABASE - 1:100,000

State government agencies issue fish consumption advisories to reduce health risks associated with exposure to hazardous substances (e.g., mercury and PCBs) in freshwater noncommercial fish and shellfish. Advisories are recommendations to limit the consumption of certain species of fish taken from waters where hazardous substances are present. EPA developed the National Listing of Fish Consumption Advisories (NLFCA) database to assist Federal, State, and local government agencies as well as Indian Tribes assess the potential risks of consuming fish and shellfish in contaminated water bodies (EPA Document No. 823-C-96-011). The version of NLFCA used in AILESP contains information provided to EPA by the States as of September 1994. Updates of the AILESP database will contain later versions of the NLFCA as they become available.

AILESP v.2.1 includes the following information:

- the types of advisories (such as restricted consumption or fishing bans),
- the species of fish, and the hazardous substances associated with each advisory,
- the segments of the population that are affected (e.g., pregnant women),
- the geographic location of each advisory (including landmarks, river miles, and latitude-longitude coordinates of the waters included),
- the dates of issue, and
- State government agency contact information.

FISHDETL.DBF – Database with supplemental information for 1995 Fish Consumption Advisories. Size: 3 mgs, zipped: 152KB

<u>Field</u>	<u>Name</u>
ADVNUM	Advisory Number
WATERBODY	Affected Waterbody
STATE	State
REGION	EPA Region
EXTENT	Extent of waterbody affected
BAN_ISSUER	Issuing Agency
WATERTYPE	Type of waterbody
POLLUTANT	Pollutant
CAS_NUM	CAS Number
SPECIES	Species of fish affected
POPULATION	Human population affected
STATUS	Status of advisory
ADV_BEGAN	Beginning date of advisory
ADV_END	End date of advisory
DATE_RECVD	Date received
LAST_UPDAT	Date last updated
CONTACT	Contact name
PHONE	Contact phone number

FISHADV.DBF – Database for ArcView coverage of 1995 Fish Consumption Advisories. Size: 896KB, zipped: 101KB

<u>Field</u>	<u>Name</u>
ID	Segment ID
ID2	Fish Advisory #
NAME	
POINTS	# of ArcView points

A.5 INDIAN RESERVATION BOUNDARY FILE - 1:100,000

The Indian reservation boundary file used for the lower 48 states contains boundary data and locational information pertaining to American Indian reservations, American Indian trust lands, Tribal designated statistical areas, and Tribal Jurisdiction statistical areas. The Census Bureau extracted these boundary files from 1990 Census data and posted them on the Census Bureau's WWW Server (<http://www.census.gov/dusd/sip/resource.html>) in ASCII format. U.S. EPA's Office of Pollution Prevention and Toxics (OPPT) created Arc/Info coverages from these extract files, projected them to decimal degrees, and imported them into ArcView using ESRI's stand alone IMPORT program. For more information on this file, contact Loren Hall, OPPT, at 202-260-3931.

The Bureau of Indian Affairs (BIA) provided the AILESP with a second ARC/Info coverage file (subsequently imported into ArcView) for Alaskan Indian reservation boundary coverages. Although this BIA file has the same reservation boundaries for the lower 48 states as the data extracted from the Census Bureau, BIA provided no documentation or accompanying metadata. Included in the boundary files are reservation names, reservation identification numbers, polygon identification numbers, polygon area, and perimeter values.

Some Tribal Areas may not be included in this file (e.g. in Oklahoma). Please make errors in the Indian reservation boundary file known to the contacts listed in this document. Future versions of the AILESP database will include improved versions of this and other data types.

IRES.DBF – Database for Tribal Areas ArcView Coverage. Size: 146KB, zipped: 30KB

<u>Field</u>	<u>Name</u>
IRCODE	Indian Reservation Code
NAME	Reservation Name

A.6 MINE DATA

Mine data in AILESP originates with the Minerals Availability System (MAS) Non-Proprietary database created under the former Bureau of Mines and now maintained by USGS. AILESP extracted select information for mine locations from the following MAS tables: the Commodity table, the MILS table, and the Ownership table. The fields from these tables were joined using the common SEQ field which contains a unique ten-digit

number referencing mineral property locations. AILESP imported this joined table into the ArcView software package using a custom Avenue script; point features were created for each latitude/longitude pair.

The quality of the information in MAS could range from preliminary, unconfirmed data to validated assessments. This information is for use and further review within the U.S. Geological Survey and by specialists in relevant disciplines in other organizations. Neither the U.S. Geological Survey nor the U.S. Government can assume responsibility, financial or otherwise, for any consequences arising out of the use of information contained within the database or decisions based upon reports from the data base.

For further information, comments or corrections, please contact the Minerals Availability System (MAS) Data Base Administrator, Bill Ferguson, USGS - MMAS, Box 25046, MS-750, Denver Federal Center, Denver, CO 80225, Telephone (303) 236-8747 Ext. 321.

Field Name/Item	Description
SEQ	Sequence number
STA	State code
COU	County code
NAM	Name of deposit or operation
CUR	Current Status
TYP	Type of operation
DOM	Domain
LON	Longitude
LAT	Latitude
POR	Point of Reference
POP	Precision of Point
REC	Record number
COM	Commodity name
MAR	Marketability
REC	Record number
NAM	Name of owner/operator
STA	Status of owner/operator
PCT	percent ownership
HOM	Home office location
YOI	Year of Information YYYY

MAS Data Element Definitions and Values

SEQUENCE NUMBER is the unique 10-digit number which references records of information pertaining to a mineral property.

NAME of the deposit or operation (35 characters) is the primary or most common name.

CURRENT STATUS (13 characters) must be selected from the following table:

<u>Code</u>	<u>Entry</u>	<u>Description</u>
00	UNKNOWN	Unknown or undetermined resource.
01	PRODUCER	Currently operating mineral property.
02	PAST PRODUCER	Previously operating mineral property, where the equipment or structures have been removed or abandoned.
03	DEVEL DEPOSIT	Resource defined, development initiated.
04	EXP PROSPECT	Resource defined by exploration methods.
05	RAW PROSPECT	Resource not defined by exploration methods.
06	INTERMITTENT_PRODUCER	Operates only part of the year. Production interrupted due to seasonal, stockpiling, or other physical restrictions on a regular basis.
07	TEMP SHUTDOWN	Temporary halt in mineral production, where the property is under care and maintenance status or this status is designated by the current owner and/or operator.
08	RECLAIMED	Location has been reclaimed.
10	OTHER	Status other than one of the above.

TYPE OF OPERATION (12 characters) refers to the existing/proposed type of operation at this site from the table below. It identifies the existing operation when Current status equals 'PRODUCER, PAST PRODUCER, TEMP SHUTDOWN or DEVEL DEPOSIT'. It identifies the proposed operation when current status equals 'EXP PROSPECT or RAW PROSPECT'.

<u>Code</u>	<u>Entry</u>	<u>Description</u>
00	UNKNOWN	Unknown or undetermined by evaluator
01	SURFACE	Surface operation
02	UNDERGROUND	Underground operation
03	SURF-UNDERG	Surface-underground operation
04	UNDERWATER	Underwater operation
05	WELL	Geothermal well
06	PROC PLANT	Processing plant
09	PLACER	Placer operation
10	LEACH	Leach operation
11	BRINE	Brine recovery operation
12	HOT SPRING	Natural hot spring

DOMAIN (14 characters) describes the type of public or private domain of the deposit area:

<u>Code</u>	<u>Entry</u>
00	UNKNOWN
05	MIXED
10	PRIVATE
15	MUNICIPALITY
20	COUNTY
30	STATE
31	STATE FOREST
32	STATE PARK
33	STATE OFFSHORE
40	FEDERAL
41	NAT FOREST
42	NAT RECREATION
43	NAT WILDERNESS
44	NAT PRIMITIVE
45	NAT PARK
46	NAT MONUMENT
47	INDIAN RES
48	NAT OFFSHORE
49	BLM ADMIN
50	MILITARY RES
61	FORGN OFFSHORE
71	INTERNAT WATER
72	UN ADMIN

LONGITUDE is an eight-character field consisting of longitude in decimal degrees

LATITUDE is a seven-character field consisting of latitude in decimal degrees.

POINT OF REFERENCE (POR, 8 characters), indicates the physical determination point for the elevation, latitude and longitude data, as selected from the table that follows.

<u>Code</u>	<u>Entry</u>	<u>Code</u>	<u>Entry</u>
01	MAIN ENT	06	PLANT
02	TRENCH	07	TOWN
03	ORE BODY	08	PIT
04	CLAIM		

PRECISION OF POINT (POP, 5 digits right-justified) gives the precision or maximum deviation from exact POR in meters (e.g. 10, 500, 5000). POP is a required if POR is entered. An entry of 99999 indicates that the precision is over 10000 meters.

<u>Code</u>	<u>Entry</u>	<u>Code</u>	<u>Entry</u>
1	10	5	1000
2	100 6	5000	
3	250 7	10000	
4	500 8	99999	

MARKETABILITY is a single-character indicator of this commodity's market status, using the following abbreviations:

<u>Code</u>	<u>Description</u>	<u>Definition</u>
P	Primary Product	Major product affecting revenue
C	Co-product	A product of equal or near equal value to another product in terms of producing revenue
B	Byproduct	A product that helps the economic viability of a property, but which would not be produced unless other primary products or co-products are being recovered
R	Recoverable	A product that is not identifiable as a primary product, co-product, or byproduct, but is recoverable or potentially recoverable. The evaluator should identify in the comments if this is a commodity proposed for stockpiling if no market presently exists, or if revenues will exist, but the status (P, C, B) of the commodity is unknown.
A	Affecting	Deleterious products or impurities that affect the marketability of the marketability recovered product(s)

COMMODITY NAME (14 characters) must be taken from appendix B-3. If a four digit commodity-modifier code is used for input, it is to be left-justified in this field. An alphabetic entry can only be used for a commodity name without a modifier.

NAME (56 characters) contains the name of an owner or operator. In order to be of value in search and retrieval, this field should consistently begin with the most common, readily identifiable key name or names (e.g., US Borax instead of United States Borax, ASARCO instead of American Smelting and Refining, etc.). For companies having both 'parent' and subsidiary companies only one ownership record should be entered, but both names may be entered, listing the most common company or operator first. Further clarification of owner/operator relationships may be made by adding "O" table referenced records to the COMMENTS table.

STATUS (8 characters) lists the status of owner or operator selected from the following:

<u>Code</u>	<u>Entry</u>
00	UNKNOWN
01	OWNER
02	OPERATOR
03	OWNER-OP

PCT (3 digits) contains the percent of ownership or operation controlled, as appropriate for this record. The percent must be a right-justified integer not exceeding 100. Leading zeros should be blanked.

HOME (20 characters) contains the STATE/NATION name of the owner's home office. The evaluator can enter the three-digit code from the STATE/NATION table. When the home office is domestic, the converted State name will be preceded by the four characters "USA ". All alphabetic entries will be treated as free form entries, to support the addition of city or town names.

YOI (4 digits) Year Of Information shows the date of the information on this record.

A.7 NON-ATTAINMENT AREAS FOR CRITERIA POLLUTANTS - 1:100,000

EPA uses six "criteria pollutants" as indicators of air quality. The criteria pollutants are ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead. EPA has established maximum concentration levels called the National Ambient Air Quality Standards (NAAQS) for each pollutant. Areas of the country where air pollution levels persistently exceed air standards or that contribute to ambient air quality in a nearby area that does not meet the national primary or secondary ambient air standards may be designated as *non-attainment* areas. EPA has developed a database that identifies non-attainment areas. The database is located on the Green Book Non-attainment Areas for Criteria Pollutants web page at www.epa.gov/oar/oaqps/greenbk. The database provides state names, county names, and a brief description of the non-attainment areas for each of the six criteria air pollutants. The non-attainment area data used in AILESP contain information provided by the EPA as of October, 1997.

Ozone (O₃) is a photochemical oxidant and the major component of smog. The ozone threshold value is 0.12 parts per million (ppm), measured as a one hour average concentration. An area meets the ozone NAAQS if there is no more than one day per year when the highest hourly value exceeds the threshold. To be in attainment, an area must meet the ozone NAAQS for three consecutive years. Sections 107(d)(4)(A) and 181 of

the Clean Air Act lists requirements for designations and classifications of ozone areas. The database provides the names, descriptions of the ozone non-attainment areas, and classifies them as:

- **Extreme** – 0.280 ppm and above.
- **Severe 17** – 0.190 up to 0.280 ppm and has 17 years to attain.
- **Severe 15** – 0.180 up to 0.190 ppm and has 15 years to attain.
- **Serious** – 0.160 up to 0.180 ppm.
- **Moderate** – 0.138 up to 0.160 ppm.
- **Marginal** – 0.121 up to 0.138 ppm.
- **Submarginal** – an area that violates the ozone standard and has a value of less than 0.121 parts per million. This occurs when there is not a complete set of data so that the estimated value is higher than the ozone standard exceedance rate of 1.0 per year even though the estimated value is less than the level of the standard.
- **Transitional** – an area designated as an ozone non-attainment area as of the date of enactment of the Clean Air Act Amendments of 1990 and has not violated the national primary ambient air quality standard for ozone for the 36-month period commencing on January 1, 1987 and ending on December 31, 1989.
- **Incomplete Data (or No Data)** – an area designated as an ozone non-attainment area as of the date of enactment of the Clean Air Act Amendments of 1990 and without sufficient data to determine if it is or is not meeting the ozone standard.

Carbon monoxide (CO) is a colorless, odorless and poisonous gas produced by incomplete burning of carbon in fuels. The National Ambient Air Quality Standard for carbon monoxide is 9 ppm measured as an 8-hour non-overlapping average, not to be exceeded more than once per year. The rounding convention in the standard specifies that values of 9.5 ppm, or greater, are counted as exceeding the level of the standard. An area meets the carbon monoxide NAAQS if no more than one 8-hour value per year exceeds the threshold. To be in attainment, an area must meet the NAAQS for two consecutive years and carry out air quality monitoring during the entire time. Sections 107(d)(4)(A) and 186 of the Clean Air Act lists the requirements for designations and classifications of carbon monoxide areas. The database provides the names and descriptions of the carbon monoxide non-attainment areas and classifies them as serious, moderate >12.7 ppm, and moderate <12.7 ppm.

Nitrogen dioxide (NO₂) is a brownish, highly reactive gas that is present in all urban atmospheres. The National Ambient Air Quality Standard for nitrogen dioxide is an annual arithmetic mean of 0.053 ppm (100 g/m³). The database provides the names and descriptions of the nitrogen dioxide non-attainment areas.

Sulfur dioxide (SO₂) results largely from stationary sources such as coal and oil combustion, steel mills, refineries, pulp and paper mills, and from nonferrous smelters. The three NAAQS for SO₂ are an annual arithmetic mean of 0.03 ppm (80 g/m³); a 24-hour level of 0.14 ppm (365 g/m³); and a 3-hour level of 0.50 ppm (1300 g/m³). The first two standards are primary (health-related) standards, while the 3-hour NAAQS is a secondary (welfare-related) standard. The annual mean standard is not to be exceeded, while the short-term standards are not to be exceeded more than once per year. The database provides the names and a description of the primary and/or secondary sulfur dioxide non-attainment areas.

Particulate matter (PM) include dust, dirt, soot, smoke, and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires, and natural windblown dust. Particles formed in the atmosphere by condensation or the transformation of emitted gases such as SO₂ and VOCs are also considered particulate matter. The PM-10 annual and 24-hour standards specify an expected annual arithmetic mean not to exceed 50 g/m³ and an expected number of 24-hour concentrations greater than 150 g/m³ per year not to exceed one. The database provides the names and a description of the particulate matter non-attainment areas and classifies them as serious or moderate.

Lead (Pb) emissions often result from lead gasoline additives, non-ferrous smelters, and battery plants. The quarterly average standard for lead is 1.5 g/m³. The database provides the names and descriptions of the lead non-attainment areas.

A.8 SAFE DRINKING WATER INFORMATION SYSTEM (SDWIS)

The Safe Drinking Water Information System (SDWIS) is a repository of information on the public water systems regulated by EPA and the States under the Safe Drinking Water Act. Information on public water systems inventory and violations, as well as State and EPA enforcement actions, are reported by States to SDWIS on a quarterly basis. SDWIS information is used by EPA Headquarters and Regions to support implementation and enforcement of the drinking water program. It is also used to characterize progress of the regulatory program and the effectiveness in terms of public health protection of the regulations. SDWIS is the major source of information for the Agency environmental indicators initiatives related to drinking water.

AILESP extracted the following information from the SDWIS: location information, source water supply, population served, facility type, address, violation flag, and treatment objectives.

Access to detailed SDWIS data is available through Surf Your Watershed (<http://www.epa.gov/surf/iwi/data>).